

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18. (Canceled).

19. (Currently Amended) A method for etching a feature in an integrated circuit wafer, the wafer incorporating at least one low-k dielectric layer partially disposed below a hardmask, the method comprising:

- disposing the wafer within a reaction chamber;
- introducing a flow of etchant gas comprising ~~a fluorocarbon~~ CH₃F and an active etchant into the reaction chamber, wherein a flow ratio of the flow of CH₃F to a total flow of the etchant gas is between about 0.25% and about 2%;
- forming a plasma from the etchant gas within the reaction chamber;
- etching the feature in at least a portion of the low-k dielectric layer with the active etchant;
- sputtering some of the hardmask with the active etchant; and
- forming a volatile compound from sputtered hardmask and fluorine, thus reducing micromasking.

20. (Previously Presented) The method, as recited in claim 19, wherein the active etchant is selected from the group consisting of hydrogen and ammonia.

21. (Canceled).

22. (Currently Amended) The method, as recited in claim ~~21~~ 19, wherein the active etchant is ammonia with a flow of about 100 sccm to about 3000 sccm ~~and the fluorocarbon is CH₃F with a flow of about 1 sccm to about 10 sccm.~~

23. (Currently Amended) The method, as recited in claim ~~21~~ 22, wherein the low-k dielectric layer is a silicon-free low-k dielectric layer.

24. (Currently Amended) The method, as recited in claim ~~21~~ 22, wherein the low-k dielectric layer is a silicon-free benzocyclobutene low-k dielectric layer.

25. (Currently Amended) The method, as recited in claim ~~21~~ 19, wherein the active etchant is nitrogen and hydrogen.

26. (Previously Presented) The method, as recited in claim 25, wherein the flow rate of the nitrogen is between about 50 sccm to about 1250 sccm and the flow rate of the hydrogen is about 25 sccm to about 500 sccm.

27. (Canceled).

28. (Canceled).

29. (Currently Amended) The method, as recited in claim ~~21~~ 19, further comprising depositing polymer from the ~~fluorocarbon~~ CH₃F on the hardmask to reduce hardmask sputtering.

30. (Currently Amended) The method, as recited in claim 29, further comprising depositing polymer from the ~~fluorocarbon~~ CH₃F on sidewalls of the feature to reduce profile bowing.

31. (Canceled).

32. (Previously Presented) The method, as recited in claim 19, wherein the low-k dielectric layer is a silicon-free low-k dielectric layer.

33. (Previously Presented) The method, as recited in claim 19, wherein the low-k dielectric layer is a silicon-free benzocyclobutene low-k dielectric layer.

34. (Canceled).

35. (Canceled).

36. (Previously Presented) The method, as recited in claim 19, further comprising depositing polymer from the fluorocarbon on sidewalls of the feature to reduce profile bowing.

37. (Previously Presented) The method, as recited in claim 19, further comprising etching an opening in the hardmask with the active etchant, wherein sputtering some of the hardmask occurs during the etching an opening in the hardmask, and wherein the forming a volatile compound occurs during the etching an opening in the hardmask, wherein the active etchant etches the hardmask opening and wherein the active etchant is selected from the group consisting of hydrogen and ammonia.